

*Brasiliensis*, it may be concluded that the present fossil is equally distinct from both.

The portion of the right hind-foot of the Rodent figured at fig. 12, includes the calcaneum, astragalus, cuboides, external and middle cuneiform bones, and the metatarsals and proximal phalanges of the toes corresponding with the three middle toes of five-toed quadrupeds. The metatarsals are chiefly remarkable for the well-developed double-trochlear articular surface, and intermediate ridge. These remains, as well as the jaws and teeth of the *Ctenomys*, were discovered at Monte Hermoso in Bahia Blanca.

In the same reddish earthy stratum of that locality, Mr. Darwin discovered the decomposed molar of a Rodent, equalling in size, and closely resembling in the disposition of its oblique component laminae, the hinder molar of the *Capybara* (*Hydrochaerus*). The fossil differs, however, in the greater relative breadth of the component laminae.

I have, lastly, to notice the head of a femur, and some fragments of pelvic bones from the same formation which bear the same proportion to the tooth above alluded to, as subsists between the teeth and bones of the *Capybara*, and which are sufficient to prove that there once has existed in South America a species of the family *Caviidae*, as large as the present *Capybara*, but now apparently extinct.

This fact, together with the greater part of those which have been recorded in the foregoing pages of the present work, establishes the correspondence, in regard to the characteristic type, which exists between the present and extinct animals of the South American Continent: we have abundant evidence likewise of the greater number of generic and specific modifications of these fundamental types which the animals of a former epoch exhibited, and also of the vastly superior size which some of the species attained.

At the same time it has been shewn that some of the present laws of the geographical distribution of animals would not have been applicable to South America, at the period when the *Megatherioids*, *Toxodon*, and *Macrauchenia* existed: since the Horse, and according to M. Lund, the Antelope and the Hyæna, were then associated with those more strictly South American forms. The Horse, which, as regards the American continent, had once become extinct, has again been introduced, and now ranges in countless troops over the pampas and savannahs of the new world. If the small Opossums of South America had been in like manner imported into Europe, and were now established like the Squirrels and Dormice in the forests of France, an analogous case would exist to that of the Horse in South America, as the fossil *Didelphys* of Montmartre proves.

With respect to the geological contemporaneity of the fossils collected by him, Mr. Darwin subjoins the following observations:—

“The remains of the following animals were embedded together at Punta Alta in Bahia Blanca:—The *Megatherium Cuvierii*, *Megalonyx Jeffersonii*, *Myiodon Darwinii*, *Scelidotherium leptcephalum*, *Toxodon Platensis* (?) a Horse and a small Dasypodoid quadruped, mentioned p. 107; at St. Fé in Entre Rios, a Horse, a Mastodon, *Toxodon Platensis*, and some large animal with a tessellated osseous dermal covering; on the banks of the Tercero the Mastodon, *Toxodon*, and, according to the Jesuit Falkner, some animal with the same kind of covering; near the Rio Negro in Banda Oriental, the *Toxodon Platensis*, *Glossotherium*, and some animal with the same kind of covering. To these two latter animals the *Glyptodon clavipes*, described by Mr. Owen in the Geological Transactions, may, from the locality where it was discovered, and from the similarity of the deposit which covers the greater part of Banda Oriental, almost certainly be added, as having been contemporaneous. From nearly the same reasons, it is probable that the Rodents found at Monte Hermoso in Bahia Blanca, co-existed with the several gigantic mammifers from Punta Alta. I have, also, shown in the Introduction, that the *Macrauchenia Patachonica*, must have been coeval, or nearly so, with the last mentioned animals. Although we have no evidence of the geological age of the deposits in some of the localities just specified, yet from the presence of the same fossil mammifers in others, of the age of which we have fair means of judging, (in relation to the usual standard of comparison, of the amount of change in the specific forms of the invertebrate inhabitants of the sea,) we may safely infer that *most* of the animals described in this volume, and likewise the *Glyptodon*, were strictly contemporaneous, and that *all* lived at about the same very recent period in the earth's history. Moreover, as some of the fossil animals, discovered in such extraordinary numbers by M. Lund in the caves of Brazil, are identical or closely related with some of those, which lately lived together in La Plata and Patagonia, a certain degree of light is thus thrown on the antiquity of the ancient Fauna of Brazil, which otherwise would have been left involved in complete darkness.”